

In the claims:

not marked.

an analog photocell adapted to capture light energy incident upon it as a series of analog signals;

a first sample-and-hold amplifier coupled to said photocell and adapted to store a first analog signal of the series of analog signals;

a second sample-and-hold amplifier coupled to the first sampleand-hold amplifier and adapted to store the first analog signal when the first sample-and-hold amplifier stores a second analog signal of the series of analog signals;

a differential amplifier coupled to the first and second sample-andhold amplifiers generating an analog difference of the first analog signal and the second analog signal;

a digital converter coupled to said differential amplifier said converter transforming the analog difference into a digital value.

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2. (Amended) An apparatus according to claim 1 wherein said digital converter includes:

a voltage controlled oscillator;

a counter coupled to said oscillator, said oscillator setting the rate of increase of said counter.

3. An apparatus according to claim 2 further comprising:

a register coupled to said counter, said register receiving said digital value as an output of said counter at the end of a predetermined time period.

4. An apparatus according to claim 2, wherein said digital converter includes:

a scaling signal supply, said supply adapting the output of said oscillator in a dynamic range consistent with ambient lighting to which said photocell is exposed.

5. An apparatus according to claim 1 utilized in an imaging device.

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